The Plight of Children

Jay L. Grosfeld, MD

The opportunity to serve in a leadership role in this unique professional organization has been a very rewarding experience. I am extremely fortunate to have had the privilege to be the President of the American Surgical Association—the oldest and most revered surgical society in our country. I am grateful for your confidence and the honor to serve in this capacity. It has been the highlight of my professional career. I have been blessed in many ways: to grow up in an intact family and have the guidance and support of concerned and loving parents as a youngster and the love and constant companionship of my wife Margie who embraced my goals as her own and stood by my side with unwavering faith and support for the past 45 years, and let me follow my star. We were blessed with 5 wonderful and loving children who learned to share their dad with literally thousands of other children that I had the privilege of caring for as a pediatric surgeon. They and their mates have provided an additional joy in our life: our 16 beautiful grandchildren. I also had the good fortune of training under 2 exceptionally gifted teachers that played an important role in paving the path for my career as an academic surgeon, and I would like to briefly recognize each of them. Professor Frank C. Spencer, my Chairman in General Surgery (and a previous President of this organization) when I was a resident at New York University [NYU]and the late H. William Clatworthy Jr., my Chief in Pediatric Surgery at the Columbus Children's Hospital, Ohio State University (also a member of this organization). Each had a special influence on my career as teacher, counselor, mentor, and friend. Dr. Spencer also gave me my first job as a faculty member at NYU. I would also like to recognize the late Dr. John E. Jesseph, the Chairman of Surgery at Indiana University who recruited me to Indianapolis 35 years ago to begin the children's surgical program and whom I succeeded as Chairman of Surgery after his untimely death. I would also like to thank my students, residents, and colleagues at Indiana University and the many close and dear friends in surgery that I have worked with over the years for their friendship and support.

From the Section of Pediatric Surgery, Department of Surgery, Indiana University School of Medicine and Riley Children's Hospital, Indianapolis, Indiana.

Dr. Grosfeld is the Lafayette Page Professor of Pediatric Surgery, Emeritus, Indiana University School of Medicine.

Reprints: Jay L. Grosfeld, MD, Riley Children's Hospital, 702 Barnhill Drive-Suite 2500, Indianapolis, IN 46202. E-mail: jgrosfel@iupui.edu.

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One of the more daunting responsibilities of the Presidency is presenting an address at the annual meeting of the Association. This has been accomplished by many of the giants in the field of surgery who have served before me as President of this organization. My friend, Past President Carlos Pellegrini, kindly provided me with a collection of all the prior Presidential addresses for my perusal in preparing this talk. I read many of them, and for the most part, they are outstanding treatises covering a wide array of educational, clinical, technical, economic, association-oriented, historical, and other timely health care topics. After careful consideration, I decided to talk about something different, a subject I am best prepared to discuss: the care of children. For the past 40 years I have had the opportunity and privilege to provide surgical care for infants and children. While it has been a wonderful experience and there have been significant advances in care and admirable improvements in survival, to some extent children remain a disadvantaged group within both society and the overall health care scheme. It is because of these concerns I would like to share my thoughts with you regarding the plight of children. Plight is defined in the dictionary as "a condition or situation of difficulty or adversity." It is derived from the old English term "plithen" meaning "imperiled or compromised."

AN INTERNATIONAL PROBLEM

The World Health Organization (WHO) estimates that each year 10.6 million children die before reaching their fifth birthday. Each day 29,000 children die (1 per 30 seconds).[1] More than 3 million stillbirths occur annually. Four million die in the first month of life, 20% on day 1. Early causes of death include pneumonia, diarrhea, measles, malaria, malnutrition, neonatal conditions, and HIV/AIDS.[1] In 2003, 27 million children were not immunized. Older children are often victims of conflict and poverty. While the main focus is on mortality, the neglected child is also a major problem as little attention is paid to morbidity, subsequent disability, quality of life, and economic strain on the family. Two of the 6 billion inhabitants in the world today live below the poverty level. Even in nations with a recent economic upswing (eg, China, India) there are relatively few affluent people surrounded by millions in poverty with many children living each day facing a future that is uncertain. The UN Millennium Development Goals are ambitious and include reducing childhood mortality and developing a continuum of care from conception to childhood.[2] Safer pregnancy, improved care at birth, feeding strategies, and reducing childhood illness by providing vaccines are some of the planned interventions of

noble intent but the problem is making them accessible. There is a lack of funding and access to care in underdeveloped countries and a severe shortage of health care workers, especially in Africa and Southeast Asia.

While these observations have attracted international attention, and some support from WHO, the Hollywood set, Bill and Melinda Gates Foundation, and a spattering of other foundations, rare individuals, and medical missions, how does this directly affect our country and why is it important to surgeons? After all we are an affluent nation: these things don't happen here and our children are well educated and have access to just about everything, including health care. Not exactly true. I plan to show you how our children are shortchanged, how their care is inadequately funded, and that their environment places them at risk.

As an example, in my home state of Indiana with a population of 6.3 million people, 1.6 million are children. From 2003 Center for Disease Control data, I was shocked to learn that 16% of children lived below the poverty level, 3% were not immunized, 25% required government-assisted health care, 10% were uninsured, and 1 in 5 (20%) were obese. Sixty percent of 3 to 4 year olds were not enrolled in nursery school or preschool and 35% of the fourth graders had below basic level reading skills.[3]

There are approximately 82 million children in the United States representing 27% of the (>300 million) population. By comparison, there are 7 million children (22% of the population) in Canada and 40 million children (40% of the population) in Mexico. One in 4 operations (25%) in the United States is performed on patients less than 18 years of age.

CHILDHOOD MORTALITY

What are the major causes of childhood mortality in the United States? Injuries, childhood cancer, and congenital anomalies rank at the top (Table 1). All of these conditions are of vital interest to children's surgeons and often require their expertise. Today we will focus on injuries. According to the Center for Disease Control, unintentional accidents are the leading cause of death in children less than 19 years. The national injury fatality rate is 21.06 of 100,000 population.[3] Indiana ranks first nationally for injury-related deaths in infants less than 1 year (79.8 of 100,000—more than half due to unintentional suffocation and strangulation), ranks third for children from 0 to 4 years (28.8 of 100,000) and 26th overall.[3] Many of the unintentional injury deaths in our state are due to motor vehicle-related accidents in toddler (36%), school-aged (53%), and adolescent children (50%). Seventeen percent of toddler deaths were due to drowning, 15% from burns, and 10% from other undetermined unintentional causes. A striking statistic is that homicide was the cause of death in 11% of infants less than 1 year, 17% of preschool children (1–4 years), 11% of school-aged children (5–14 years), and 15% in adolescents (15–19 years).[3] Suicide was the cause of death in 2 of 55 school-aged children and 14% of adolescents (29 of 212).

TABLE 1. Childhood Mortality Ages 1 to 14 Years*

All causes	12,392 (22/100,000)
1. Accidents	4,805 (8.5/100,000)
2. Cancer	1,434 (2.5/100,000)
3. Congenital anomalies	894 (1.6/100,000)
4. Homicide	727 (1.3/100,000)
5. Cardiac disease	452 (0.8/100,000)
6. Respiratory disease	380 (0.6/100,000)
7. Suicide	307 (0.3/100,000)

*National Center for Health Statistics 2002.

CHILD ABUSE

Child abuse is a major international problem with nearly 53,000 children murdered annually.[1] More than 3 million cases are reported each year in the United States.[4] Abuse is rooted in social, economic, and cultural factors. Violence occurs within families, in schools, communities, and extends to child care and justice institutions. The types of abuse include physical, emotional, sexual abuse, neglect or negligent treatment (including nutritional neglect, educational neglect, physical harm due to lack of supervision and abandonment), trafficking for commercial use or child sexual exploitation (prostitution, pornography), and in some parts of the world, recruitment as suicide bombers and childhood soldiers (Table 2). In some impoverished areas, selling one's child into slavery or prostitution for profit is also included. Infants and young children are at the greatest risk with abuse rates in the 0 to 5 year age group 4 times greater than for children 5 to 14 years.[4] The extent of abuse is often obtained from death registries and varies according to income levels of countries and the region of the world. The highest rate of child abuse is noted in low income countries, particularly Africa. The true magnitude of the problem is unknown because not all instances are reported, particularly nonfatal cases. Population-based surveys are probably more effective in determining the extent of nonfatal injuries. In the United States in 1995 such surveys suggested that 49 of 1000

TABLE 2. Types of Abuse

- Physical
- Emotional
- Sexual
- Neglect
  - Nutritional
  - Educational
  - Health risk
  - Lack of supervision
  - Abandonment
- Munchausen syndrome
- Exploitation
  - Childhood soldiers
  - Child suicide bombers
  - Human trafficking
    - Slavery
    - Prostitution
    - Pornography

children had some type of nonfatal abuse. In Indiana in 2004 there were 35,817 cases of child abuse reported with 274 deaths. Sexual abuse rates rise during the adolescent years with girls at a higher risk, whereas boys are at a greater risk for assault. Premature infants, twins, and handicapped children are at an increased risk for physical abuse and neglect. Mistreatment of the parent as a child and domestic violence, drugs or alcohol dependency in the home doubles the risk of abuse to the children as does residing in a single parent or broken home environment. Stepchildren are over represented in child abuse reports. Parental stress and isolation without social or community support resources, low parental educational level, and poverty also increase the risk of abuse. The common patterns of child abuse include repetitive soft tissue (bruises and lacerations) and skeletal injuries, unusual site burns, solitary head injury, and abdominal injuries in children less than 3 years.[5] As physicians we must recognize and suspect instances of abuse, provide appropriate care, communicate with the family, and document and report the event to child protective services and law enforcement agencies. Consequences of child abuse are many and include the victim eventually adopting behavioral risk factors (drugs, smoking, alcohol), poor diet, lack of exercise, having an increased risk of suicide and psychiatric disorders, aggressive behavior, cognitive impairments, and poor school performance that may eventually lead to problems that become a burden to society, the health care system, community, and judicial system. Even with social service interventions and the placement of children in protective foster care, the outcomes for these children are of dire concern.[6,7] Former foster care children make up 30% of the homeless and 25% of the prison population. One-third receives public assistance within 15 months of leaving foster care. In 2002, 55% of former foster care children between the ages of 18 and 24 years did not have a high school diploma. Even when employed, former foster care children have an average income of $16,500 per annum 25% less than that of the general population.[7]

CHILDHOOD VIOLENCE

Information concerning child violence in the United States for 2005 shows that infant homicide rates rose from 4.3 of 100,000 population in 1970 to a high of 9.2 in 2000, and declined to 7.8 in 2003.[8] After accidents, homicide and suicide are the second and third leading causes of death in older children. Every 2 hours a child or youth is a homicide victim, every 2 hours a child is killed by firearms, and every 4 hours a child or youth commits suicide.[9] In the 15 to 19 year age group, deaths due to suicide, homicide, and as a result of firearms were 4, 6, and 10 times, respectively, more common among boys than girls.[10,11] Suicide in teenagers was more frequent among Native Americans (24.7 of 100,000) and non-Hispanic whites (13.3 of 100,000) than in Hispanic (9.2), Asian (6.7), and African Americans (6.6). In regard to teen homicide, the rate increased from 9.3 of 100,000 population in 2002 to 9.5 of 100,000 in 2003. The rates were 58.9 of 100,000 among African American males, 25.1 in Hispanic boys, 15.3 in Native Americans boys, 7.0 in Asian and Pacific Islanders, and 3.6 among non-Hispanic white boys. Firearms were responsible for the majority of teenage homicides, suicides and accidental deaths, the highest use occurred in African American boys 59.4 of 100,000 versus 27 in Hispanics and 11.1 in non-Hispanic white boys.[10]

Violence against children in schools and other educational and child care institutions is an ongoing problem.[10,11] Violent crimes against teenagers exceed that perpetrated against adults. Catastrophic events at schools like the recent tragedy at Virginia Tech University and the Columbine High School shootings in Littleton, Colorado, are relatively uncommon but catch the attention of the public as deadly reminders of the problem. Although there has been a reduction in the number of incidents concerning firearms in high schools as a result of surveillance, physical and psychologic abuse, bullying, school yard, and sexual gender-related assaults and gang-related violence persist.[12,13] The Federal Bureau of Investigation (FBI) has identified 26,000 gangs in the United States with 840,500 youth members with 40% (336,000) less than 17 years of age. Technology has also played a role with the use of cell phones and the Internet, cyber bullying and online threats have become commonplace often leading to self-harm in the victim with occasional instances of suicide.

CHILDHOOD SOLDIERS

In areas of the world affected by armed conflict, children are the targets of war and are often killed or maimed by bullets, bombs, landmines, or other acts of terror.[1] Human sacrifice using children as suicide bombers occurs infrequently and is a practice that can only be condemned in the civilized world. Large numbers of boys (often as young as 10–11 years) forced into a role as child soldiers become active combatants and are kept in line by drugs and fear of murder if they attempt to escape. The UN lists 12 governments and 85 armed groups in 25 countries that violate the UN Convention on the Rights of Children for using child soldiers. Even after the conflict is resolved, many of these children are severely disabled, psychologically traumatized, homeless, malnourished, and often ill without access to support services or health care.

The homeless child is also a problem in developed countries, and it is estimated there are 1.6 million homeless children (either abandoned or runaways) currently in the United States that have limited access to health care.[13–15]

CHILDHOOD SEXUAL ABUSE

Child sexual abuse, assault, and exploitation are topics relatively hidden from the view of most of the population. More than 105,000 cases of sexual abuse in children less than 12 years occur in the home annually. The actual incidence is probably under reported. Most of the perpetrators are male and are family members or are known to the child in the majority of cases.[16] Increased vulnerability to childhood sexual abuse is observed in single parent and broken homes, children in foster care, adopted children, stepchildren, children that are physically and mentally disabled, those confined in detention centers, and victims of war and conflict. The risk of

sexual abuse in children is 4 times greater for those residing in low income, poverty stricken areas with public housing.

Rape, molestation, exposure to pornography, and exposure to sexual acts of others are the most common forms of abuse. Instances of sexual assault include forced rape, sodomy, genital insertion of objects or instruments, and fondling. Drugs facilitate sexual violence and an increased use of promised drug availability and date rape drugs has been reported. Eighty-five percent of sexual assaults occur in girls. Up to 39% of girls less than 19 years have reported instances of sexual harassment and attempts at fondling. Recent instances of sexual activity among teachers, teachers and students, and among students themselves within school confines have been noted in the media to the dismay of many.

CHILDHOOD EXPLOITATION

Childhood exploitation for forced labor and prostitution is a worldwide problem. Two to 4 million people are trafficked within countries with 600,000 to 800,000 trafficked across international borders annually.[16,17] Eighty percent are women, half are younger than 18 years of age. Ten percent are trafficked for child servitude as sweatshop laborers and domestic workers. While some of the children are kidnapped or sold into sex slavery by their families, other factors that lure them into becoming human trafficking victims include poverty, war, despair, abandonment, ignorance, and other crisis (ie, the 2004 Tsunami), making them vulnerable to promises of looking for a "better life." Human trafficking has become a 9.5 billion-dollar business annually, exceeded only by sales of drugs and weapons as a source of income for organized crime (Asian triads, Russian gangs, Italian Mafia, Japanese Yakuza, South American and Mexican drug cartels). Most victims come from South and Southeast Asia, Russia and Eastern Europe, Latin America, the Caribbean region, and Africa. While many are trafficked to Thailand, Japan, the Middle East, Australia, and Western Europe, 45 to 50,000 women and children are smuggled into the United States annually with a third being less than 17 years and often much younger.[16] Half are used for commercial sexual exploitation. Most illegal prostitutes are girls that locate mainly in larger cities with prior established prostitution markets, vacation and tourist areas, or near military bases frequented by a large number of transient males (sex tourists and other predators, truckers, conventioneers, and service men). A minority of teenaged girls that are in gangs provide sex for gang members and occasionally provide income by prostitution. Although infrequent, some 15- to 17-year-old prostitutes from the United States are trafficked to Japan, Korea, Taiwan, and Europe by organized crime. Ninety-five percent of commercial sex involving boys occurs with adult males (gay sex). Sex tourists from the United States and Australia are often pedophiles that travel to the Philippines or Thailand for arranged sex with young boys. Many of the domestic child prostitutes are street children that are abandoned or runaways and use sex as a source of income for sustaining their meager domicile, for food, or their drug habit. Approximately 25% are controlled by pimps, and many get involved with production of pornography. Street children are often addicted to drugs, frequently are undernourished, and are vulnerable to acquiring sexual transmitted diseases and HIV/AIDS. They are subject to mental illness, including depression, attention deficit syndrome, and posttraumatic stress but have limited access to health care.[16,17] They often resort to criminal activity and are exposed to physical danger. In February 2007, Austrian police uncovered an international global pornography ring that involved more than 2300 suspects in 77 countries, including the United States.[18] Explicit sexual material involving children less than 14 years was produced in Eastern Europe, initially posted on a Russian website and was uploaded in the United Kingdom. The porn industry is highly profitable and exceeds the combined revenue of all professional sports franchises (54 billion dollars).[19] The Internet is a prime area for enticement of children. Eight percent of the total e-mails propagate porn. There are 100,000 websites that offer illegal childhood porn material. The average age of first exposure to internet porn is 11 years, and 30% of children 8 to 16 years of age have viewed porn online.[19,20] Exploitation of children for prostitution, pornography, and trafficking has become a major concern for the Department of Justice, The National Center for Missing and Exploited Children, and the FBI. The Innocence Lost Initiative of 2003 focused on child victims of interstate sex trafficking in the United States and led to President Bush reauthorizing the Victim of Trafficking and Violence Protection Act in 2005 signed into law in January 2006.[17]

CHILDREN'S EMERGENCY CARE

The crisis in Emergency Care in the United States is a well-recognized problem but is accentuated for children.[21,22] Despite trauma due to accidental and intentional injury being identified as the leading cause of death and a major health care problem in children, access to quality emergency care for children is less than desirable. The Institute of Medicine report on "Emergency Care for Children—Growing Pains" clearly recognizes the inadequacies.[23] Most emergency rooms and emergency services are ill-equipped and inexperienced in handling children and pediatric input regarding the treatment, medications and technology used for unique aspects of caring for injured or ill children and disaster planning is lacking. Children represent 27% of all emergency room visits but only 6% of the facilities reviewed by the Institute of Medicine had appropriate equipment and trained personnel to deliver their care.[23] There are only 14 approved level 1 pediatric trauma programs at children's facilities in the country. Children in rural areas are further disadvantaged regarding access to emergency care than their urban counterparts. Emergency facilities in rural communities experience a significant shortage of emergency room personnel and physicians with pediatric trauma expertise on-call.

STATUS OF CHILDREN'S HEALTH INSURANCE COVERAGE

Developing an adequate comprehensive and inclusive health insurance plan that provides appropriate access to care for children has been an elusive goal. Of the 46 million Americans that are currently uninsured 9.2 million (20%) are

children. Most (96%) are US citizens.[24] The actual number may be slightly higher because census figures may not include undocumented (illegal) children. Seventy percent of families with incomes below 200% of the federal poverty level ($16,500 for a family of 3 in 2006) comprise 70% of the current uninsured. Latinos are the most uninsured ethnic group (3 million).[25,26] Medicaid is the largest single insurer for children with states receiving federal funds to administer the program. Medicaid enrolls 24 million children less than 19 years of age at a cost of 28 billion dollars. The requirements for eligibility are determined by each state, and use of Medicaid funds varies from state to state. Although children represent nearly 60% of Medicaid enrollees, they account for only 23.5% of all Medicaid expenditures.[23,26] Most of the funds provide services to adults on Social Security who are older than 65 years, the blind and disabled, those living in medical institutions, pregnant women with children younger than 6 years old, relatives or legal guardians of children that are enrolled in the Medicaid program, and women with breast or cervical cancer. Eleven states also cover adult patients with tuberculosis for disease-related costs. Overall, Medicaid covers 1 in 10 Americans, 1 of every 3 births, 1 in 4 younger than 5 years, 1 in 5 younger than 19 years, half the nursing home care, half of inpatients in public hospitals, and half of those with HIV/AIDS.[27]

The implementation of the State Children's Health Insurance Plan (SCHIP) in 1997 extended coverage to an additional 3.4 million children in low-income families by allocating 40 billion dollars over 10 years reducing the number of uninsured children.[24,26–28] As of 2006, 5.8 million children are enrolled in SCHIP. The number of uninsured children varies from state to state with a low figure of 5.6% noted in Massachusetts to a high of 20.4% in Texas and is often directly related to how much the state invests in health care programs.[4,27] SCHIP can be an extension of Medicaid (must follow Medicaid requirements, including providing proof of citizenship), be used as a separate plan funded entirely by the state where proof of citizenship is not required or both. SCHIP programs may require copays for some aspects of care, according to the family income. Two-thirds of the 9.2 million uninsured children may be eligible for Medicaid or SCHIP; however, they may lack knowledge about eligibility and the application process and have language barriers that prevent them from acquiring coverage.[24,26,28,29] Federal health benefits for legal immigrants are restricted for 5 years for children arriving after 1996, despite the fact that their parents pay taxes.

It is a flawed system that depends on federal and state budget appropriations. For many states, Medicaid is the largest or second largest budget item and most of the funding is not spent on children. States may employ the Medicaid medical waivers act under Section 1115 of the Medicaid law to modify eligibility and also direct patients to managed care systems that may not provide necessary specialists nor meet the health care needs of the children.[24,27] With a financial crisis anticipated in many states, cutbacks in Medicaid spending by eliminating benefits and tightening eligibility requirements can be expected. This can be accomplished by state executive order without legislation. The Deficit Reduction Act of 2005 gave states unprecedented authority to make significant changes to Medicaid, which could be harmful to children. Only 13 states have some authority to limit harmful changes through state laws requiring oversight of Medicaid waivers. Seventeen states are currently anticipating SCHIP funding shortfalls. Some states (Illinois, Massachusetts, and Pennsylvania) have enacted plans for universal health coverage for children.[27] California and Indiana are proposing use of cigarette tax money to fund similar but yet unapproved programs. Significant cutbacks in federal funds for Medicaid (including the use of block grants and other measures to cap spending) and SCHIP would threaten most state programs especially those that require residents to have health insurance. It is anticipated that in the next 3 to 5 years, an additional 13 to 15 billion dollars over present expenditures would be required to maintain current SCHIP enrollment levels.[27] There is a lack of uniformity in state enrollment practices and outlay of expenditures for health care for children. The formula for distribution of federal funding for SCHIP depends on the number of uninsured low income children there are in a state and regional and geographical health factors and the SCHIP program requires renewed federal reauthorization.

Access to care for children is also hampered by the fact that Medicaid reimbursement to physicians is abysmal. Medicaid reimbursement is well below the levels used to reimburse Medicare (33% less in Indiana) and the resource-based relative value scale system in place for pediatric illnesses disadvantages pediatric physicians considerably.[24,27] Burdensome paperwork and an inefficient bureaucracy often delay payment. Pediatricians and other pediatric medical and surgical specialists, particularly those in academic health centers, care for a significantly higher proportion of Medicaid patients. Because of poor reimbursement, practitioners are hesitant to accept more than 30% of Medicaid patients in their practice since a larger proportion would result in the practitioner losing money as reimbursement would not cover office practice overhead.[24,27] In most major children's hospitals, from 40% to 50% of all patients are on Medicaid with an even higher percentage noted in patients in some of the neonatal intensive care units and emergency departments. Although some federal disproportionate share dollars are made available to institutions that care for a larger proportion of Medicaid patients, little of this income ever filters down to the practitioner providing the care. In Indiana, most Medicaid patients are in capitated managed care programs, physician payments represent only 6% of the expenditures, and there has been no increase in fee for service for more than 10 years.[27]

Many children with private health insurance policies have inadequate coverage as employer based health plans often reduce coverage for employee children when insurance costs increase. Fewer than 25% of employee programs cover 100% of family health care costs. Employer-employee cost-sharing plans disadvantage dependent coverage. Cost sharing for employee health costs may be in the 10% to 15% range but could escalate to 25% to 30% or higher for dependents.

Opting out of these arrangements for dependents because of cost may be necessary for some low income workers and single parent families.[29,30] Many dependent care policies require copayments and significant deductibles for preventive care including immunizations, dental care, vision, and mental health coverage.[24]

FORCES REQUIRED FOR CHANGE

The problems I noted relating to health care, injuries (including child abuse and neglect and emergency care) address just a few of the major concerns regarding children. We haven't even touched on the significant deficiencies with public education in this country and the fact that our infant mortality remains higher (6.9 of 1000 births) than in some other developed countries. Although the teenage pregnancy rate has fallen to 40 of 1000 births in 2005, it is still the highest in the world among industrialized nations. As recently alluded to by Dr. Thomas Russell of the American College of Surgeons, the nation's health care picture is complex, fragmented, costly, and managed inefficiently.[31] Many have favored the establishment of a single payer, government-sponsored universal health care system. However, socialized medicine schemes in other countries over time drain the economy and are associated with reduced services and delays in care, particularly surgical care.[22] Experience with Medicare and Medicaid suggest that these are very costly and inefficient systems, and many detractors in the private sector and the public simply do not trust the government to handle a universal health care program effectively. But, the reality is the government already accounts for 44% of total health care expenditures, and currently, Medicaid and SCHIP is "the only game in town" for millions of children.[32] Until health care reform can be achieved, at least for the present time, preservation of financing for Medicaid and SCHIP remains a vital health care imperative for children.[24,27] The American Academy of Pediatrics policy statement regarding Child Health Care Financing provides a long list of recommendations to maintain and extend coverage, decrease administrative costs, streamline enrollment and access to achieve racial and ethnic equality, develop more uniform requirements across state borders, provide safeguards for managed care programs to provide full benefits and access to specialists, and restructure woefully inadequate physician reimbursement policies (raising reimbursement at least to Medicare levels).[24] The WHO has officially recognized inadequate reimbursement for health care professionals as a major international deterrent to improve the critical work force shortages noted throughout the world.[1] In the United States these efforts would require increased federal assistance to provide critical fiscal relief to state programs and maintain disproportionate share hospital payments. Affecting these policies requires pressure on legislators in an upcoming election year and forming alliances with other formidable lobbying groups, such as the American Academy of Pediatrics, American Medical Association, American Heart Association, and a variety of Parent Coalitions to stimulate a grass roots effort from the public. Temporary modifications in Medicaid and SCHIP depend on government support and long term this will not provide the ultimate solution to the nation's children's health care problem. Politicians are more often influenced by the concerns of their constituents than those of a group of physicians. Although the cost of children's care is considerably less than that for seniors, the large numbers of baby boomers that will soon retire and require health care will undoubtedly result in funding shifts that focus on their needs.[33] The aging population (and its advocate the American Association of Retired Persons) is a strong voting block and children may be disadvantaged because they don't vote.[33]

It is clear that America should not rely solely on government-sponsored socialized medicine; however, this requires a change in the attitude and social conscience of our nation to achieve reform. Financing health care is the Achilles heel of any rational solution to the problem. The United States spends more on health care than any other country with expenses representing 16% of the gross domestic product.[32,33] Universal health care may be a noble goal but there has to be a shared responsibility within the public and private sectors as well as from individuals desiring the opportunity to acquire health care for themselves and their dependents to get this accomplished.[31] Innovative cost-efficient, cost-sharing measures involving federal, state and local authorities, hospitals, employers and employees, insurers, and the broad health care industry (pharmaceutical and technology) should be considered that will also assure methods of providing care to children from families that cannot afford health care and protect families from costs of catastrophic events that can push them into poverty. Accountability for any new program(s) should be closely monitored by government oversight to assure compliance and avoid corruption. Tax incentives to employers that provide health care insurance and to individuals that are involved with health promotion and prevention programs should also be considered. Using the late icon of economic theory Milton Friedman's concept of applying vouchers for individual choice for education reform (recently signed into law in Utah) as an example, medical vouchers for tax paying patients would permit freedom of choice of physician and site of care, and empower the individual as a purchaser of health care.[34,35] Using revenues from special taxes such as the Value Added Tax popular in some countries to pay for health care expenditures for indigent child care, the chronically ill, and the disabled requiring long-term care may be another attractive alternative.[22] This has the potential of indirectly taxing those with higher incomes that can afford to spend more and spares taxation of the entire population particularly those with lower incomes. Considering privatization of certain segments of inefficient, ineffective, and costly government agencies has proven a successful alternative in New Zealand.

SOCIETY'S ROLE

While many are apt to place blame on the government for not providing more care, jobs, safety, better education, and the like, the society also plays a major role in the situation we find ourselves in today, particularly when it comes to the welfare of our children. In attempting to resolve

some of the problems, the public has to step-up and take some responsibility. For the past 5 decades the rate of family dissolution in our country has increased and exceeds that of other industrialized nations. It is estimated that up to 27% of children reside with a single parent.[36] Marriage has precipitously declined especially among minority and low income groups. In 1960, the percentage of births to unmarried women was 5.3%. In 2006, this number has risen to an alarming 37%. Seven of 10 African American children are born to a single mother. Marriage is associated with better physical and mental health and higher earnings in the adult and more academic success and better mental health in children.[37] Although many self-proclaimed avant-garde modern day thinkers would suggest that the nation's high rate of divorce, cohabitation and nonmarital child bearing represents little more than a lifestyle alternative to attain individual self-fulfillment, the choices can be quite damaging to the children who have no say in those decisions and to the society that enables them. There is nearly universal agreement that single parent rearing imposes serious costs on individuals and societies.[36,37]

The information presented above documents that single women and their children have an increased risk of lower levels of education, a life of poverty, a poor health environment, and exposure to violence. There is an established link between poverty, health insurance access, and child health care outcomes.[27]A meta-analysis by Amato in 2005 demonstrated that if the same number of children in the United States between the ages of 12 and 18 years were in an intact family as in the year 1980; 300,000 fewer would repeat a grade in school, 485,000 fewer would be suspended from school, 250,000 fewer would need psychiatric therapy, 210,000 fewer would be involved in violence, and 30,000 fewer would attempt suicide, and there would be significant fewer children living in poverty.[37] Cohabitation does not assure a better environment for the child. The risk of relationship dissolution among couples that cohabitate with a child is 25% at 1 year and 31% at 5 years following the birth versus 6% and 16%, respectively, among married couples. Growing up with 2 continuously cohabitating parents is rare (1.5%).[37]

While this is a very controversial topic, and some children in single parent homes do well, it is clear at least to this observer that significant funding for research must be made available to study methods to reduce family dissolution, promote marriage, and provide a safer environment for our children. Part of the Welfare Reform Bill of 1996 recognized this as a problem and provides for funding to states to study this issue through Health and Human Services.

An additional concern is who is raising our children? Preschool children spend much of their time (in some instances 9–10 hours a day, 5 days a week) in the care of someone other than their parent(s). In 2004 there were 1.3 million child care workers. It is anticipated that the number will increase by 27% over other occupations by the year 2014.[38] To assure their safety, it is essential that baby sitters, nannies, and day care workers are adequately screened and receive appropriate training to properly supervise infants and children assigned to their care. Because of the changing demographics of our nation and a wave of new immigrants, a more diverse group of day care workers and other social service personnel with language skills will be required.

The US birth rate of 14.1 of 1000 population has remained stable since the 1980s. The United States has a higher fertility rate than other developed countries in Europe (8 of 1000 in Germany, Austria, and Italy) and Japan (9.4 of 1000).[39] In the 1990s the United States accepted 11 million legal immigrants and it is estimated there are now an additional 12 million illegal immigrants. Under reporting of population, due to fear of immigrants to participate in the census as it may alert officials to their potentially illegal status, is likely. Immigrants have a higher birth rate than in the native born US population: the highest rate noted in Hispanic women (64–71 of 1000 population). It is anticipated that with continued immigration and the current birth rate that the US population will continue to increase by 100 million people during the next 50 years and will grow younger relative to Europe, Japan, and other developed countries with diminished birth rates.[39] The childhood population is expected to increase by 6% to 8% by 2020. This allows the United States to be well positioned to provide a work force to remain economically competitive. In Thomas Freidman's book *The World is Flat* he points out that there is a growing shift in the global economy from West to East.[40] In certain countries with huge populations like India and China, the economy is growing rapidly and is associated with expansion of technology, service, and a new middle class that seeks to educate itself, industrialize their own environment, and prosper. While this currently represents relatively small islands of affluence in a sea of poverty when compared with the entire populace, this likely will change in the next few decades. What Mr. Friedman really infers is that the world is not actually flat but is becoming a more level playing field and that some countries will challenge the leadership role of western nations including our own in global economy, job availability, and productivity.[40] Therefore, despite being focused on increased life expectancy, the anticipated large numbers of baby boomers attaining the age of 65 years, their departure from the work force and their impact on the economy—(especially health care expenses), maintaining the welfare of our children is a moral, social, political, and economic imperative that must not be overlooked.[33,39] This will require collaboration between parents, educators, politicians (representing the government), physicians and the private sector to overhaul and comprehensively reform our system of education and health care, enhance and promote social values, and overcome the many resistant adversaries of essential change. We must ensure that our children have an opportunity to thrive in a safe, stable, and nurturing environment both at home and in school. Investing in children's health care will result in better growth, general well being, improved school performance and long term productivity, and health care cost savings.[33] Healthy and well-educated children will provide a viable and productive workforce in the world marketplace, which is a critical factor in the changing global economy that is essential for the future welfare of our nation. How a nation cares for her children sets forth the

moral standards by which it will be remembered in history. Our children are the hope for the future. Changing the current system represents a challenge to all of our citizens including us as surgeons: the stakeholders in preserving life and serving as advocates for ill and injured children requiring our care.

REFERENCES

1. The World Health Report 2005. Geneva: WHO. Available at: http://www.who.int/whr.
2. *UN Millennium Development Goals*. New York: UN Department of Public Information; October 2002.
3. O'Neil J. *Center for Disease Control 2003 Injury Related Mortality (WISQARS). From the Safety Desk-Indiana Chapter*. Indianapolis, IN: American Academy of Pediatrics; March 2007.
4. Petit MR. *Homeland-Insecurity-American Children at Risk.* Washington, DC: Every Child Matters Education Fund; 2006.
5. Vane DW. Child abuse and birth injuries. In: Grosfeld JL, O'Neill JA Jr. Fonkalsrud EW, et al, eds. *Pediatric Surgery.* 6th ed. Philadelphia: Mosby-Elsevier; 2006:400–407.
6. Catalano SM. Criminal victimization-2005 NCJ214644. US Bureau of Justice Statistics (Table 6). 2006. Available at: http://www.oip.usdoj.gov/bis/abstract/cvo5. htm.
7. Krebs B, Pitcoff P. *Beyond the Foster Care System: The Future for Teens*. Piscataway, NJ: Rutgers University Press; 2006.
8. Hoyert DL, Kung HC, Smith BL. Deaths: preliminary data for 2003. In: *National Vital Statistics Reports*. Vol. 53. Issue no. 15. Hyattsville, MD: National Center for Health Statistics; 2005:Table 5.
9. Shelov SP. Children at risk: we shall overcome. *Arch Pediatr Adolesc Med*. 1997;151:931–936.
10. Finkerhor D, Ormrod R. *Homicides of Children and Youth*. Washington, DC: Office of Juvenile Justice and Delinquency Prevention, US Department of Justice; 2001. Available at: http://www.ncjrs.org/pdffiles1/ojjdp/187239. pdf.
11. DeVoe JF, Peter K, Kaufman P, et al. *Indicators of School Crime and Safety.* Washington, DC: US Departments of Education and Justice, US Government Printing Office; 2004:7. NCES 2005-002/NCJ 205290. Available at: http://www.ojp.usdoj.gov/bjs/pub/pdf/iscs04. pdf.
12. Institute of Education Sciences, US Department of Education. *Crime, Violence, Discipline and Safety in US Public Schools: Findings From the School Survey on Crime and Safety: 2003–2004*. Washington, DC: US Department of Education; December 29, 2006. NCES 2007302rev.
13. Committee on Community Health Services, American Academy of Pediatrics. Providing care for immigrant, homeless and migrant children. *Pediatrics*. 2005;115:1095–1100.
14. Simms MD. Medical care of children who are homeless or in foster care. *Curr Opin Pediatr*. 1998;10:486–490.
15. Klein JD, Woods AH, Wilson KM, et al. Homeless and runaway youths access to health care. *J Adolesc Health*. 2000;5:331–339.
16. Estes RJ, Weiner NA. *The Commercial Sexual Exploitation of Children in the US, Canada, and Mexico. Executive Summary*. Philadelphia: University of Pennsylvania School of Social Work, Center for the Study of Youth Policy; 2005.
17. Miko FT. *Congressional Research Service for Congress: Trafficking of Persons: The US and International Response*. Washington, DC: Library of Congress; July 2006.
18. Oleksyn V. 2,360 suspects in global child porn ring. *Associated Press, AOL News,* February 7, 2007.
19. Rigby JL. *Raising Respectful Children in a Disrespectful World*. New York: Howard Books (Simon and Schuster); 2006:142.
20. National Research Council, Youth, Pornography and the Internet. 2002. Available at: www.nationalacademies.org.
21. Werth G. Impending crisis in emergency care. *Bull Am Coll Surg*. 2007;92:20–26.
22. Trunkey DD. A growing crisis in patient access to emergency care: a different interpretation and alternative solutions. *Bull Am Coll Surg*. 2006;91:12–22.
23. Institute of Medicine Board on Health Care Services. Emergency care for children: growing pains. 2006. Available at: http://www.iom.edu/id=35026.
24. Committee on Child Health Financing, American Academy of Pediatrics. Medicaid policy statement. *Pediatrics*. 2005;116:274–280.
25. Flores G, Olson L, Tomany-Korman SC. Racial and ethnic disparities in early childhood health and healthcare. *Pediatrics*. 2005;115:189–193.
26. Flores G, Abreu M, Brown U, et al. How Medicaid and State Childrens Health Insurance Program can do a better job of insuring uninsured children: the perspectives of parents of uninsured Latino children. *Ambul Pediatr*. 2005;5:332–340.
27. Swigonski N. *Medicaid and SCHIP—A Report to the Indiana Chapter*. Indianapolis, IN: American Academy of Pediatrics, April 2007.
28. Shone LP, Szilagyi PG. The State Children's Health Insurance program. *Curr Opin Pediatr*. 2005;17:767–772.
29. Shone LP, Dick AW, Brach C, et al. The role of race and ethnicity in the State Childrens Health Insurance Program (SCHIP) in four states: are there baseline disparities and what do they mean to SCHIP? *Pediatrics*. 2003;712:e521.
30. Rolett A, Parker JD, Heck KE, et al. Parental employment, family structure and child health insurance. *Ambul Pediatr*. 2001;6:306–313.
31. Russell TR. Response to the role of government in health care: a societal issue. *Am J Surg*. 2006;191:158–160.
32. Musgrove P, Zeramdini R, Carrin G. Basic patterns in National health expenditure. *Bull World Health Organ*. 2002;280:134–142.
33. Freed GL, Faut K. The impact of the aging of America on children. *Health Aff*. 2004;23:168–174.
34. Friedman M, Friedman RD. *Free to Choose: A Personal Statement*. Orlando: Harcourt; 1980.
35. Friedman M. Free to choose. *Wall Street Journal,* January 9, 2005 (Hoover Digest 2005;3, Hoover Institute, Stanford, CA).
36. Haskins R, McLanahan S, Donahue E. The decline of marriage: what to do. *Future Child*. 2005;15:1–7.
37. Amato PR. The impact of family formation change on the cognitive, social and emotional well-being of the next generation. *Future Child*. 2005;15:75–96.
38. Bureau of Labor Statistics-US Department of Labor: Occupational Outlook Handbook 2006–2007 edition, Child Care Workers. Available at: http://www.bls.gov/oco/ocos.170. htm.
39. Jackson R. *300 Million Americans: What Does It Mean?* Washington, DC: Center for Strategic and International Studies (CSIS); October 18, 2006.
40. Friedman TL. *The World Is Flat: A Brief History of the 21st Century.* New York: Farrar, Strauss and Giroux; 2005.